

M.L.  
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IAF-14



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Coates et al. ✓  
 Serial No. : 07/835964 ✓  
 Filed : February 20, 1992 ✓  
 For : 1,3-OXATHIOLANE NUCLEOSIDE ANALOGUES

New York, New York  
 September 17, 1992

Hon. Commissioner of Patents  
 and Trademarks  
 Washington, D.C. 20231

RECEIVED

OCT 15 1992

APPLICATION DIVISION

STATEMENT UNDER 37 C.F.R. § 1.56 AND § 1.97

Sir:

Pursuant to 37 C.F.R. §§ 1.56 and 1.97,  
 applicants, through their attorney, make of record the  
 following documents\* in the above-identified application:

United States Patent Publications

4,336,381

5,039,667

\*\*5,047,407

European Patent Publications

EP 0 212 409 B1

EP 0 302 760

EP 0 337 713 A2

EP 0 349 242 A2

EP 0 363 582 A1

\*\*EP 0 382 526 A2

\* Copies are enclosed. For the convenience of the Patent Examiner, applicants have enclosed a completed Form PTO-1449 listing these documents.

\*\* Applicants believe these documents may be relatively more pertinent than others of the documents cited herein.

Great Britain Patent Publications

GB 2 063 257 A

GB 2 230 266 A

International Patent Publications

WO 89/04662

\*\*WO 90/12023

WO 91/00282

\*\*WO 91/01326

\*\*WO 91/11186

Articles

\*\*Baba et al., "Both 2',3'-Dideoxythymidine and its 2',3'-Unsaturated Derivative (2',3'-Dideoxythymidinene) are Potent and Selective Inhibitors of Human Immunodeficiency Virus Replication in vitro", Biochemical and Biophysical Research Communications, 142(1) pp. 128-134 (1987) ("Baba");

\*\*Balzarini et al., "Potent and Selective Anti-HTLV-III/LAV Activity of 2',3'-Dideoxycytidinene, the 2',3'-Unsaturated Derivative of 2',3'-Dideoxycytidine", Biochemical and Biophysical Research Communications, 140(2), pp. 735-742 (1986) ("Balzarini");

\*\*Belleau et al., "Design And Activity Of A Novel Class Of Nucleoside Analogs Effective Against HIV-1", Fifth International Conference on AIDS, Montreal, Canada, Abstract T.C.O. 1 (1989) ("Belleau");

Carlisle et al., "Cellular Pharmacology Of The Anti-HIV Agent BCH-189 (2'-Deoxy-3'-Thiacytidine) In Human Peripheral Blood Mononuclear Cells (PBMC)", American Association for Cancer Research Proceedings, 31, abstract 2435, (1990) ("Carlisle");

Gosselin et al., "Systematic Synthesis And Biological Evaluation Of  $\alpha$ - and  $\beta$ -D-Lyxofuranosyl Nucleosides Of The Five naturally Occurring Nucleic Acid Bases", J. Med. Chem., 30, pp. 982-991 (1987) ("Gosselin");

Herdewijn et al., "3'-Substituted 2',3'-Dideoxynucleoside Analogues as Potential Anti-HIV (HTLV-III/LAV) Agents", J. Med. Chem., 30, pp. 1270-1278 (1987) ("Herdewijn");

Lin et al., "Synthesis and Antiviral Activity of Various 3'-Azido, 3'-Amino, 2',3'-Unsaturated, and 2',3'-

Dideoxy Analogues of Pyrimidine Deoxyribonucleosides against Retroviruses", J. Med. Chem., 30, pp. 440-444 (1987) ("Lin");

\*\*Mitsuya et al., "3'-Azido-3'-Deoxythymidine (BW A509U): An Antiviral Agent that Inhibits the Infectivity and Cytopathic Effect of Human T-Lymphotropic Virus Type III/Lymphadenopathy-Associated Virus in vitro", Proc. Natl. Acad. Sci. USA, 82, pp. 7096-7100 (1986) ("Mitsuya-1");

Mitsuya et al., "Inhibition of the in vitro Infectivity and Cytopathic Effect of Human T-Lymphotropic Virus Type III/Lymphadenopathy-Associated Virus (HTLV-III/LAV) by 2',3'-Dideoxynucleosides", Proc. Natl. Acad. Sci. USA, 83, pp. 1911-1915 (1986) ("Mitsuya-2");

\*\*Wainberg et al., "Anti-HIV Activity, Toxicity And Pharmacokinetics Of Totally Novel Nucleoside Analogs," Fifth International Conference on AIDS, Montreal, Canada, Abstract M.C.P. 63, p. 552, (1989) ("Wainberg-1").

\*\*Wainberg et al., "Characterization Of AZT-Resistant Isolates Of HIV-1: Susceptibility To Deoxythiacytidine And Other Nucleosides", Sixth International Conference on AIDS, San Francisco, California, Volume 3, Abstract S.B.87, p. 117 (1990) ("Wainberg-2");

None of the above-cited documents, made of record by applicants herein, renders unpatentable, either alone or in any combination thereof, the amended claims of this application. Applicant requests that these documents: (1) be fully considered by the Examiner during examination of this application, (2) be listed on any Notice of References Cited issued in this application, and (3) be printed on any patent that may issue from this application.

I Hereby certify that this correspondence is being deposited with the U. S. Postal Service as First Class Mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, on

Sept. 21, 1992  
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